

REMARKS/ARGUMENTS

Reconsideration of this application is requested. Claims 10, 11, 19-22 and 26-28 remain pending in the application. Of these claims 20-22 and 26-28 have been allowed while the remaining claims stand rejected.

In preparing this response it was noted claims 23, 24 and 25 are substantial duplicates of claims 10, 11 and 19, respectively, so claims 23-25 have been deleted.

Claims 20 and 26 are objected to as containing informalities as specified on page 2 of the Official Action. These informalities have been addressed and corrected in the above amendments to claims 20 and 26. Also, claim 21 is amended to depend from claim 20 (and not itself).

The balance of the Official Action deals with two prior art-based rejections both based upon newly cited references. Claims 10, 11 and 19 are rejected as being anticipated by the newly cited Yanagita et al reference US 5,246,892.

First, applicants explain Yanagita reference and then the differences between independent claim 10 and Yanagita reference.

The Yanagita reference seeks to provide a Faraday rotation glass having no platinum inclusions for use in a laser optical system to achieve a large output. The "platinum inclusion" refers to foreign matter (platinum fine particles) that comes into the glass from the platinum crucible when the glass is melted in the platinum crucible. When glass having platinum inclusions is irradiated with a high-energy laser beam, the platinum inclusions absorb the laser beam, and heat is locally generated causing thermal stress. As a result, a problem arises in that the glass undergoes cracking due to the thermal stress thus generated.

If the platinum inclusion is ionized and melted in the glass, it disappears. In Yanagita reference, therefore, an oxidizing gas is bubbled in the molten glass containing the platinum inclusion. A closer look reveals Yanagita does not support the examiner's argument offered in support of the rejection. Examples 42 and 43 which the Examiner

pointed out in the Office Action describe that "Raw materials were mixed, ... each of the resultant mixtures was charged into a large-scale platinum furnace kept at 1100°C, ... gradually cooled to give glass products having a diameter of 10.5 cm and a length of about 85 cm. While melting each mixture, an oxygen gas was flowed into the crucible through a quartz glass tube at a rate of about 5 liters/minute". This description of Examples 42 and 43 shows that a mixture of glass raw materials is charged into a platinum crucible and then melting of the mixture is initiated. It is clear that the bubbling is initiated after a molten glass is accumulated in the crucible, so that the following is also clear with regard to Examples 42 and 43: the mixture of the glass raw materials is charged, and then the mixture is melted, and then the bubbling is initiated. That is, the Yanagita reference does not disclose the concept that the mixture of glass raw materials is introduced into the position of bubbling or that free phosphorus generated by decomposition of a glass raw material is oxidized by the bubbling gas.

As the examiner states in the outstanding Office Action, a paragraph bridging pages 2 and 3, Yanagita reference also discloses means of flowing the oxidizing gas over the surface of the molten glass in the crucible as a means equivalent to means of bubbling the oxidizing gas.

In the present invention, however, the means of flowing the oxidizing gas over the surface of the molten glass in the crucible cannot constitute a complete substitute for the means of bubbling the oxidizing gas.

Claim 10 differs from the Yanagita reference. Claim 10 has a characteristic feature that an oxidizing gas is bubbled in the molten glass, and the glass raw material for the phosphate glass is charged into a position of the bubbling, causing free phosphorus to be readily oxidized to prevent corrosion of the melting vessel.

On the other hand, the Yanagita reference is directed to a concept in which platinum fine particles which are included, as foreign matter, in a molten glass are readily melted.

It is therefore clear that claim 10 and its dependent claims 11 and 19 are fundamentally different from the Yanagita reference.

In item 2 of the Action the examiner rejects claims 11 and 23 to 25 under 35 USC 103(a) as being unpatentable over the Yanagita reference in view of Broemer (U.S. 3,847,624) also newly cited.

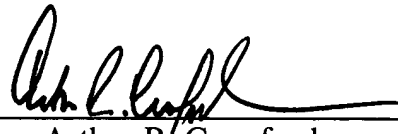
Since, however, claim 10 and the Yanagita reference have been made on the basis of distinctly different technical thoughts as explained above, the technical thought of claim 10 is not at all inferable from a combination of the Yanagita reference with the Broemer reference. Therefore, claim 11 which is dependent from claim 10 is not obvious over the Yanagita reference in view of the Broemer reference.

For the above reasons it is respectfully submitted that claims 10, 11 and 19 are drawn to patentable subject matter. Reconsideration and allowance are solicited. Should the examiner require further information, please contact the undersigned by telephone.

Respectfully submitted,

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